India - Driving Education Empowerment & Development (IN-DEED) Foundation

Annual Report 2020-21

Contents

1. Introduction

IN-DEED Foundation is a registered Trust that engages youth volunteers and harnesses technology tools with a vision to enable provision of quality education to every child in India.

The purpose is to improve learning levels, academic performance, awareness, exposure, confidence, capabilities and employability of students and youth in rural India.

Vision:
"Give every child the right start to learning"

Mission:
"Create a clear impact on the lives of the children we support, as well as on society"

Objectives:
The objectives of IN-DEED Foundation are to – Provide, Enable & Enhance – for children in government schools and rural youth:
  i. Foundational skills:
     a. Age and grade appropriate learning levels in reading & arithmetic among primary school students
 ii. Learning & Academic Performance:
     a. Completion of at least 12 years of formal
     b. Schooling with good grades in the first attempt
iii. Digital Empowerment:
     a. Practical computer training, Digital & MS Office skills
 iv. Future Readiness:
     a. Confidence,
     b. Capabilities,
     c. Functional command of the English Language
     d. 21st century skills

The challenges that IN-DEED Foundation aims to tackle are:

  i. Education Deficit –
     a. Huge Learning gap in basic reading and arithmetic skills
     b. High failure rates in Class X Board exams
     c. High dropout rates among senior school students
 ii. Digital Divide
     a. No computer training in government schools
     b. Rural students and youth lack Digital skills
iii. Little exposure essential for 21st century job readiness

Target Group
  i. Rural Areas
 ii. Government schools

Programs:

Since its inception in May 2014, the Foundation has been running following programs for students of rural government schools in several districts of Rajasthan:

i. '*Adhyayan*' (Academics):
- o Extra Classes on curriculum subjects
- o Exam preparation
- o Continuous Assessments
- o STEM learning

ii. '*E-Kaushal*' (Digital Empowerment):
- o Practical computer training
- o MS Office
- o Digital skills - Online tests, accessing useful materials on the Internet

iii. '*Sambhavna*' (Wholesome Education):
- o Personality development,
- o Student Exchange & Peer-learning,
- o Conversational skills,
- o Confidence building,
- o Co-curricular activities,
- o Learning Camps,
- o Robotics workshops,
- o Mentoring & Counselling

Impact

i. Positively impacted lives of over 10,000 students
ii. Helped improve academic performance of over 2,500 students in crucial board exams
iii. Provided computer training & digital empowerment to 1,000 students & rural youth
iv. Set up a Digital Resource Centre in nodal village of Pali district – fully equipped with E-infrastructure
v. Organised *Taabar* (meaning child), an edutainment fair for the first time for rural audience of West Rajasthan
vi. Volunteers drawn from some of the best educational institutions of the State

How we do it:

1. YOUTH VOLUNTEERISM - Leveraging collective power of Youth,
   i. Engaging them in volunteering & outreach activities
   ii. Volunteers visit government schools and rural areas leading interventions towards holistic development of children

2. HARNESSING TECHNOLOGY TOOLS - To connect with schools and students
   i. Make teaching more interactive
   ii. Inspire interest and attention for learning
   iii. Reaching out to students in remote villages
   iv. Covering larger geographical area
   v. Scale up initiatives at a faster pace
   vi. Collaborate with any volunteer anywhere in the world

2. Program Updates 2020-21

2.1 COVID 19 – Education Deficit and the Digital Divide

The Coronavirus enforced shutdown of schools has further exacerbated the Education Deficit & Digital Divide in India, adversely affecting millions of students who lack access to devices or a stable Internet connection. Closure of schools due to Coronavirus put a complete stop to teaching and learning for most rural and government school students.
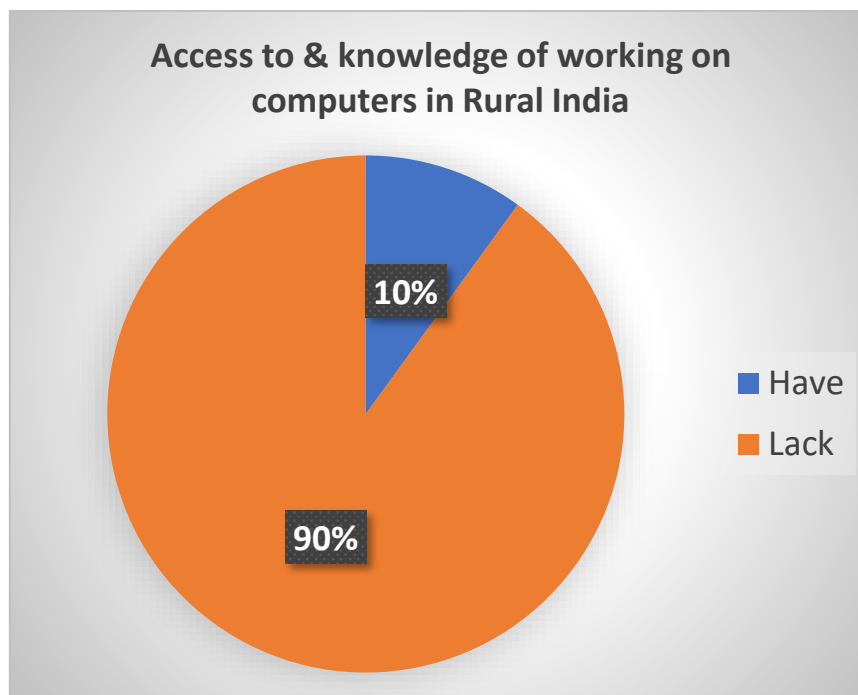

Figure 1: according to ongoing and continuous surveys conducted by IN-DEED Foundation during its Digital Empowerment programs in 20 villages in 3 districts of rural Rajasthan

Beginning in the last week of March 2020, the Covid-19 pandemic led to shutting down of all schools across the country. Rural and government school students had no option for online learning during the lockdown durations. Most schools remained shut for primary students and upper primary students throughout academic session 2020-21, with senior school students attending for a few months in the entire year. This led to instruction time and quality going down and the reduced number of assessments from a hugely truncated syllabus leading to tremendous learning loss.

In a survey of rural students across 3 districts of Rajasthan conducted in May-June 2020, IN-DEED Foundation discovered that fewer than 10% students were able to continue with their education through online mediums. Even among those lucky enough to receive/ access online classes it was revealed to be mostly instructions and YouTube videos pushed through WhatsApp.
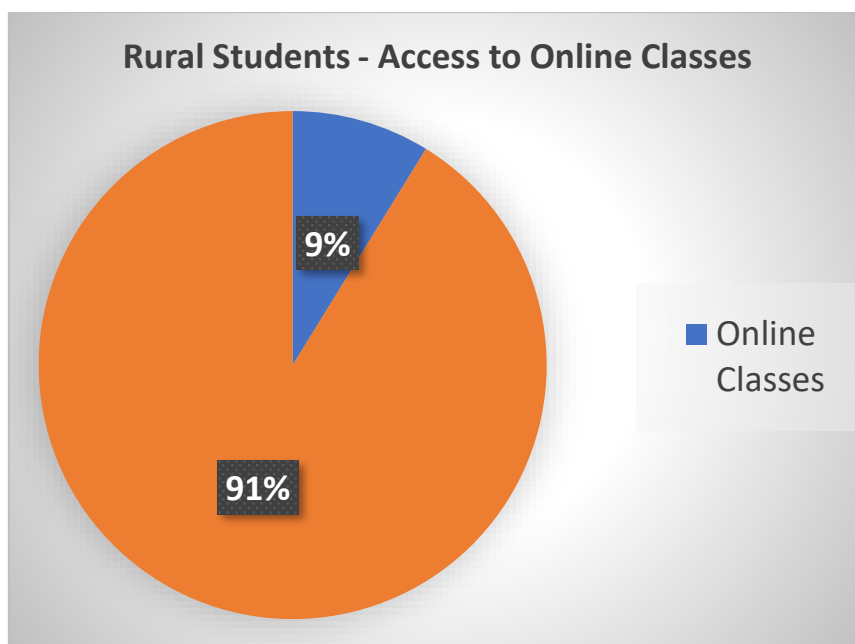
Rural Students - Access to Online Classes

9%

91%

■ Online Classes

Figure 2: according to surveys conducted by IN-DEED Foundation in May-June 2020 in three districts of Rajasthan

Only sharing of documents and/or pre-recorded YouTube videos through WhatsApp
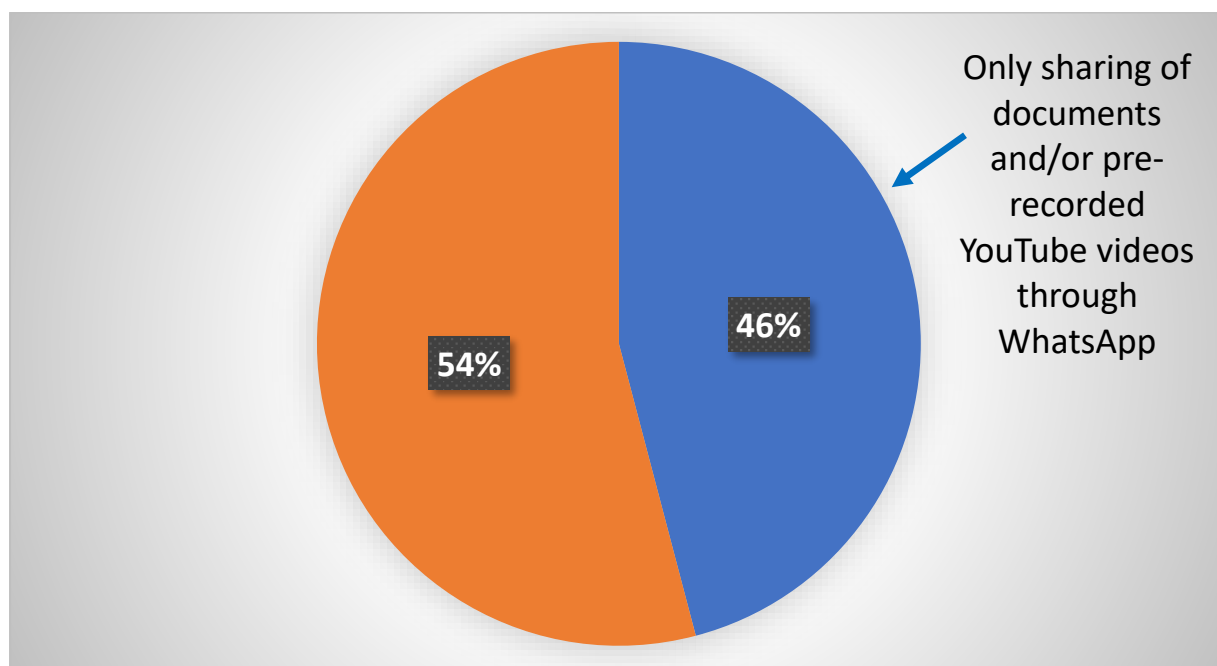
46%

54%

Figure 3: in rural areas which reported some online classes were held, most of these comprised only sharing of documents and pre-recorded YouTube videos through WhatsApp

2.2 Quality Education

Despite the challenges presented due to the unprecedented havoc wrecked by the coronavirus, including complete shutdown of schools for a most of the year, IN-DEED Foundation continued to work on improving education quality and student performance in rural areas through its technology and volunteer led interventions.

2.2.1 Academics – extra classes

Unlike previous years, the shutdown of schools left no option open for direct interaction with students through onsite classes in schools or community centres. In response, IN-DEED rose to the challenge by taking the following innovative approaches:

i. Installing Intranet Access Points for Online Classes – With CSR support from **Kajaria Ceramics Ltd**., IN-DEED decided to set up Wide Area Network (WAN) WiFi Intranet in selected schools where school students can access live and recorded lectures without connecting to Internet. This allowed students to continue their learning from the safety of their homes without worrying about spending their allotted daily internet quota on classes.

ii. Partnering with Online Education Content Providers – IN-DEED Foundation partnered with content providers **ConceptLive** and **eVidyaLoka** who conducted online classes for students and also shared content for offline use.

iii. Online Assessments – IN-DEED started online assessments for students in government schools. The assessments are conducted on individual tablets where students attempt questions in multiple choice question format from a specific course subject /topic in Hindi. Immediately upon completion of the test, students can check their scores, questions answered correctly and mistakes made. Further, they can compare their scores with their peers.

iv. Preparing Audio Files of Course Content – IN-DEED enrolled a large number of student volunteers to prepare audio files of course content (*by class, subject and chapter*) in Hindi exactly as per syllabus books prescribed by the Rajasthan Board.
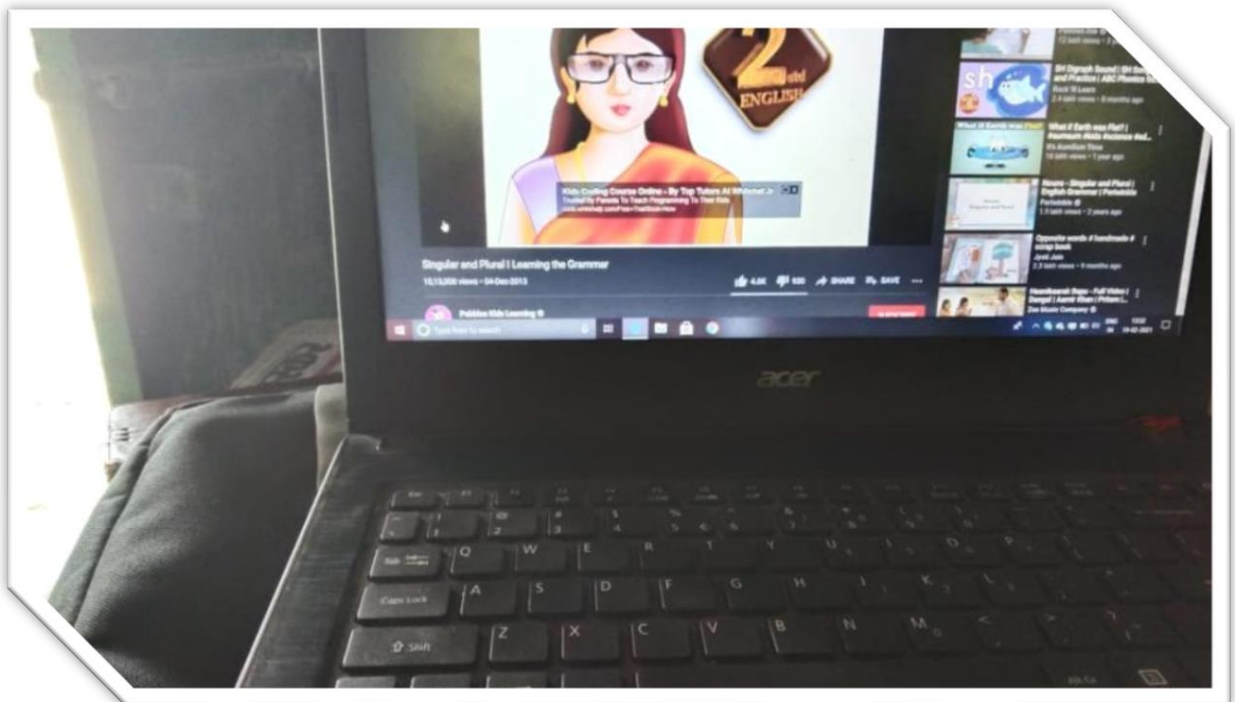
2.2.2 Foundational Skills

i. Online and Onsite Sessions – IN-DEED volunteers conducted both online and onsite sessions for primary students to keep them engaged in the learning process while schools were closed. Sessions for subjects such as English, GK and Mathematics were conducted to help them understand curriculum topics and achieve learning as per grade level.

2.3 COVID-19 Relief Work

IN-DEED Foundation partnered with several organisations to provide relief materials including food packets in Vadodara, Gujarat to the deprived and needy.

In partnership with PC Financial Services Pvt. Ltd., IN-DEED distributed masks for protection from Corona to frontline workers and the rural and urban poor in the states of Delhi, Rajasthan and Gujarat.

3. Activities & Events

3.1 Inclusive Education Dialogue

The year 2020 saw governments and people the world over grappling to survive the invisible onslaught of the Coronavirus. While life everywhere was completely thrown out of gear, among the worst hit sectors was Education. The virus enforced a complete shutdown of educational institutes for most of the year leading to serious learning gaps. For a minority of students from public school's education moved online with minor inconveniences but for millions from government schools and rural areas who lacked access to devices or Internet connection, the shutdown meant a lost academic year with no physical classes and no option of online education.

Taking cognizance of this issue and realising its enormity and urgency, IN-DEED Foundation along with Kartik Bajoria (*a writer-educator and mentor to students*) decided to initiate The Inclusive Education Dialogue (TIED). The purpose of the Dialogue was to bring together experts from the education and technology sectors to find solutions this this crisis.

3.1.1. Frist Panel Discussion – Reaching the Unconnected Millions

The Inaugural Panel Discussion of this series was conducted on 31st May 2020 through a webinar on zoom. Focusing on **Reaching the Unconnected Millions**, the panel featured eminent persons (Ajai Kumar Atal, Director SOS Childrens Villages of Rajasthan, Sadhana Garg, journalist and Founder Chairman Raghukul Trust, Mohd. Imran Khan, teacher, self taught app developer and recipient of several national awards, Pranshu Patni Co-Founder Hello English and Monika Arora Principal Him Jyoti School) coming from varied backgrounds like Government, Journalism, NGOs, App-gurus and Ed-tech start-ups whose educational applications are being used by millions of students.

THE INCLUSIVE EDUCATION DIALOGUE
(Inaugural Panel- Reaching the Unconnected Millions)
Sunday, 31st May 5:00-6:00 pm

AJAI KUMAR ATAL
Director & Vice Chairperson,
(SOS Children Villages of Rajasthan)

SADHANA GARG
Journalist,
Founder, Chairperson
(Raghukul Trust)

MD IMRAN KHAN
Teacher, App Developer,
Recipient of several
National Awards.

PRANSHU PATNI
Co-Founder, Hello English
(Asia's most downloaded app)

MONIKA ARORA
Principal,
Him Jyoti School,
Dehradun

KARTIK BAJORIA
Educator, Writer

VIKRAM RAJOLA
Chairman, IN-DEED

An initiative by IN-DEED Foundation and Kartik Bajoria.

The inaugural panel discussion helped understand the challenges and obstacles being faced by the unconnected millions and the enabling role that technology can play to mitigate the crisis. To overall objective of the Inclusive Education Dialogue is to facilitate exchange of ideas, gain insights from experienced persons working in the education ecosystem, further collaboration withing the sector and to scope for workable solutions. A few of the proposed solutions discussed were later considered for implementation as pilot programs in collaboration with key stakeholders.

3.1.2 Second Panel Discussion – Ed-Tech: Possibilities and Solutions

The Second Panel Discussion, **Ed-Tech: Possibilities and Solutions**, sought to bring together experts from the education and technology sectors to find appropriate technology tools that can play the role of enabler and a feasible solution so that all students are provided an equal opportunity to learn and grow. An expert panel of technologists (techies) from India and the USA, having experience of working with some of the leading Tech firms in the world including Google, Microsoft, Team Computers, Linear Squared, Cisco Systems, Oracle, Binomial Solutions, Cybage and ThoughtWorks, took part in the discussion.

The objective was to generate ideas for two types of workable solutions, one that can be immediately taken up for implementation as pilots to fill in teaching gaps during the current academic session hard hit by Covid19 crisis, and the other that could radically alter and improve quality of learning and can be adopted for the longer term, supplementing academic efforts in schools and colleges and fulfilling IN-DEED Foundation's overall objectives. The technology options considered during the Panel Discussion were novel & innovative tools including Test Engines, Grade Level Learning Assessment Apps, Customised Learning App with audio files (of entire course curriculum for classes I-XII in Hindi), along with options for gathering and measuring continuous Feedback for improving content & assessment process by integrating AI into the proposed solutions.
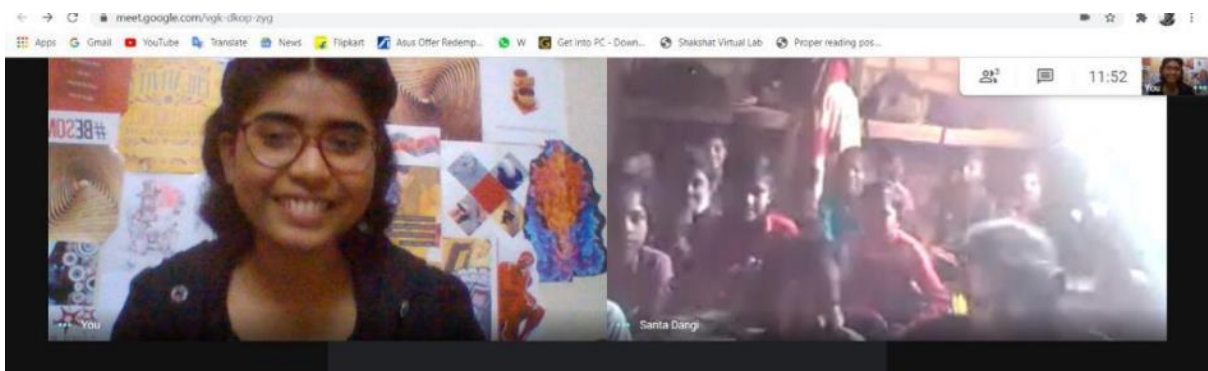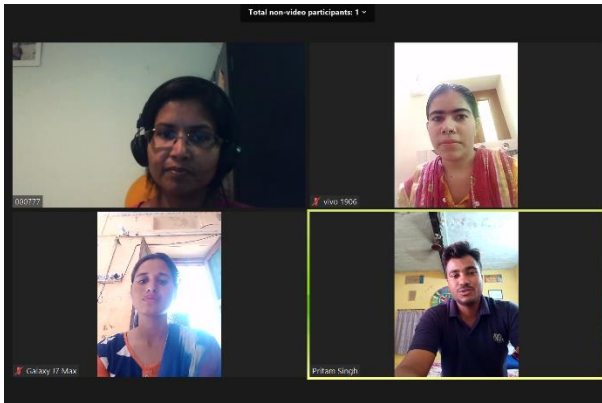

THE INCLUSIVE EDUCATION DIALOGUE (TIED) TO EDUCATION
(IInd Panel: Ed-Tech- Possibilities & Solutions)

Sunday, 14th June 2020; 5:00-6:00 pm

Ranjan Chopra — Founder & Managing Director, Team Computers
Mohit Pande — Co-Founder & Sr. VP, Linear Squared Pvt. Ltd.
Sushma Singh — Sr. Technology Architect, Credit Suisse
Shadab Nazar — Principal Engineer, Cisco Systems
Raja Brijbhushan — Co-Founder & CTO, Binomial Solutions Pvt. Ltd.
Kartik Bajoria — Educator, Writer, Session Moderator

An initiative by IN-DEED Foundation and Kartik Bajoria.

3.2 Online Teaching Sessions – by individual Volunteers

Volunteers based in places as far as USA and Uttar Pradesh conducted online sessions for rural students, teaching them curriculum subjects as well as basic concepts for grade level learning.

Interesting learning methodologies were used by the volunteers to keep the sessions engaging and interesting- using games like eye games, word games and observation games.
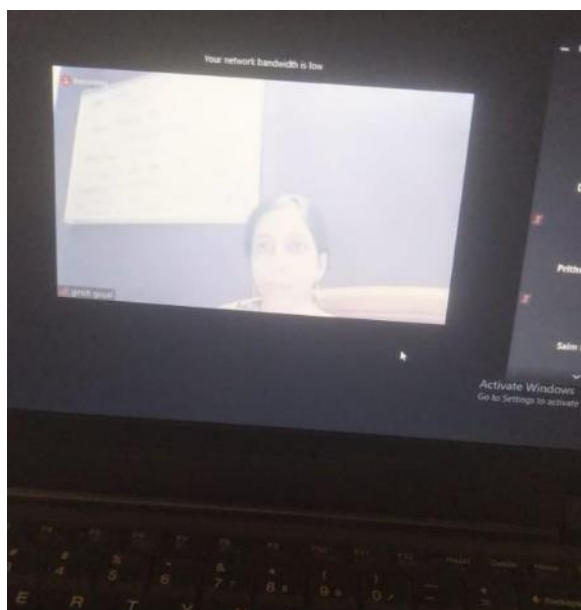
3.3 Online Classes by Education Content Providers

IN-DEED Foundation partnered with education content providers ConceptLive and eVidyaLokda. Classes were conducted on curriculum subjects and other relevant topics like English and General Knowledge. All these classes were conducted free of cost for students, whether at government schools, IN-DEED Digital Resource Centre, or during the lockdown at individual student's homes and community centres in villages.

ConceptLive conducted classes on Science and Mathematics for students of class VIII and X, helping students to prepare for Board exams.

eVidyaLoka classes were for students of class V to IX focusing on English, Science and Mathematics, along with focus on non-curriculum topics like spoken English and GK.
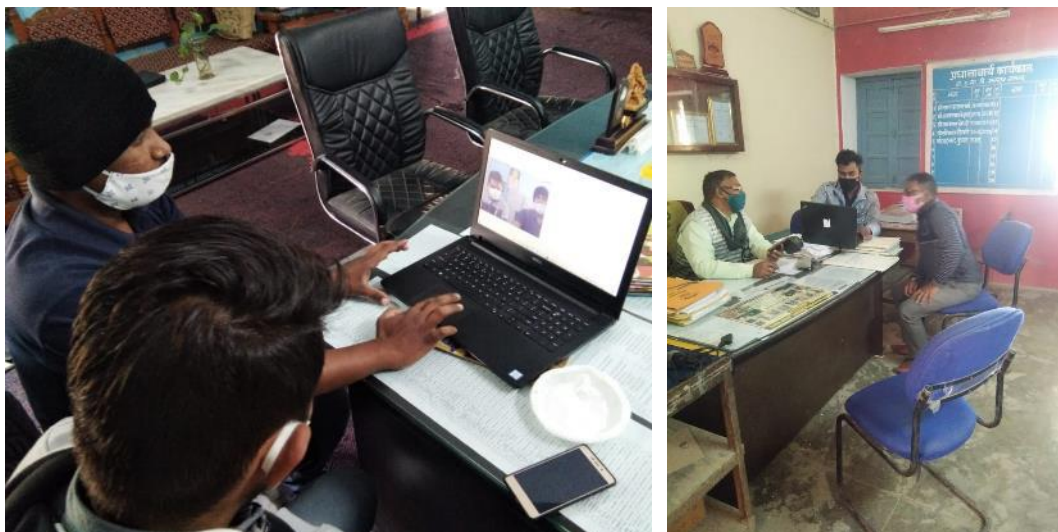
3.4 Intranet Connectivity at Schools

In-Deed Foundation installed Wireless Access Points at the following schools (3 rural and 1 urban) in Jodhpur and Pali districts of Rajasthan.

S. No	NAME OF SCHOOL	DISTRICT	RURAL/ URBAN
1	Government Senior Secondary School Chharwas	Pali	Rural
2	Government Senior Secondary School Sardar Samand	Pali	Rural
3	Government Senior Secondary School Lolawas	Jodhpur	Rural
4	Mahatma Gandhi Government Senior Secondary School Chainpura	Jodhpur	Urban

Intranet connectivity through Access Points enabled access to access live lectures by volunteers and teachers for students. An app was developed inhouse by IN-DEED to facilitate transmission of live classes on smartphones, tablets and laptops. The project was made possible through generous CSR support from Kajaria Ceramics Limited.

Picture - Access Points for Intranet Connectivity installed at suitable locations

Picture - Explaining working of the technology to school principals and teachers

3.5 PLATform – Personalised Learning, Assessment and Training

With the coronavirus pandemic raging, for most rural and government school students, even though they have been promoted to the next class, the year 2020-21 meant there was little or no active learning at school.

With CSR support from Aditya Birla Capital Group, IN-DEED plans to successfully develop and implement a technology platform that is useful to allow students from learn from home until schools reopen and in the long run is immensely useful to reduce the education gap and bridge the rural-urban digital divide. This is **PLATform** – An Integrated Technology Solution to Tackle the Education Deficit and Bridge the Digital Divide

PLATform is being developed as a software that can connect the dots to deliver quality content in a secure environment by enabling live and recorded classes by school teachers, channelizing interaction and collaboration between students and teachers, and allow students to participate in regular and timely assessments and training sessions. Efforts will be made to make it the software platform as interactive as possible so that there is effective and 'real learning' online. An onsite component at schools and IN-DEED's Digital Resource Centre will complement these efforts.

Accessible easily on smartphones, tablets, laptops and PCs, the PLATform will be made easily navigable, with content and navigation buttons in Hindi for easier understanding to ensure that students regularly access and benefit from it.
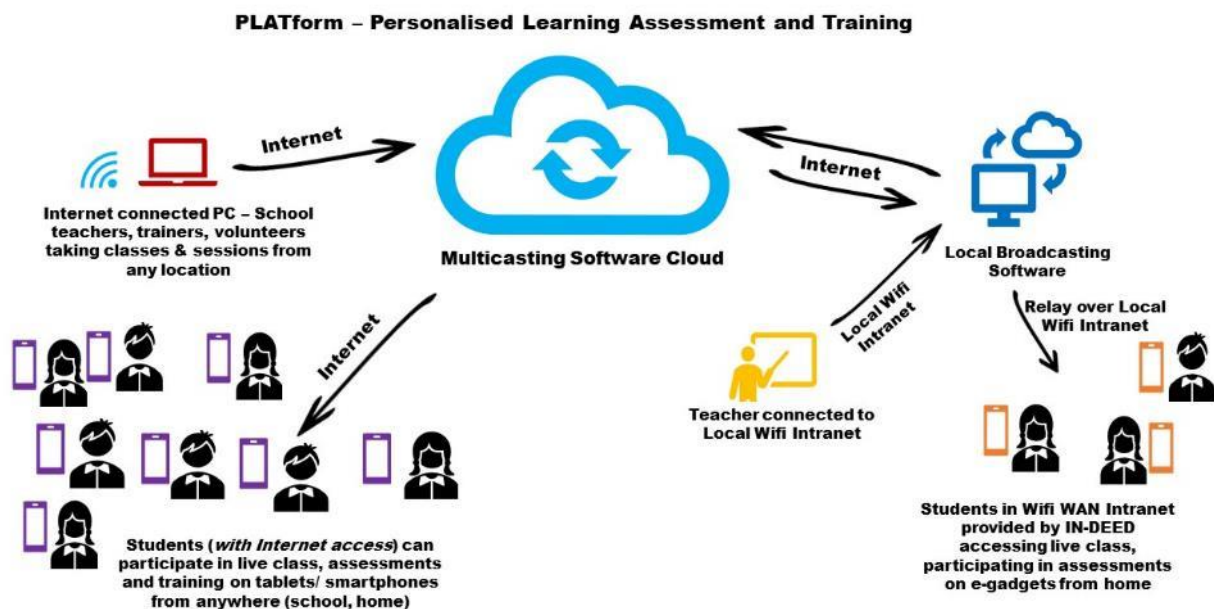
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PLATform – Personalised Learning Assessment and Training

Figure – *PLATform 5,000 students from 50 intervention schools can attend live lectures and training sessions, as well as participate in assessments conducted under the program*

The overriding goal of this project is to help students become more engaged in the learning process, improve understanding on curriculum subjects, achieve grade-level learning, enthusiastically participate in assessments, attend training programs on essential career and life skills as well as to make up for the learning loss due to covid19 enforced school shutdown.

PLATform will have facility for video-conferencing, interactive message and sharing assessments. Through this program IN-DEED hopes to reach out to five thousand students from 50 rural and urban government schools in Jodhpur and Pali disctricts of Rajasthan in 2021-22.

Personalised Learning

Students will be able to freely access the following on their own devices or those available at schools, such as smartphones/ tablets/ laptops/ PCs:

- *Live classes by teachers* – subject lectures conducted by teachers of intervention schools for their students. These will be very useful and most needed until the time schools are fully reopened.
- *Online classes* – conducted by IN-DEED's education partner ConceptLive (https://conceptlive.in/) who shall provide free classes to beneficiary students,
- *Recorded lectures* – in addition to the live and online classes, students will be able to freely access:
  - *Audio files in Hindi medium* – IN-DEED Foundation has developed audio files of curriculum content for several chapters of main subjects for classes I – X, based on text books prescribed by the Rajasthan Board
  - *Video lectures* – the Foundation has collaborated with several teachers and curriculum developers to obtain high-quality video of course content in Hindi language.
- *Quality content by other providers (non-copyrighted and free)* – existing content by NCERT and other Government departments working on school education as also that developed by other private/ non-profit agencies will also be pushed so that students are aware about these and are able to take advantage of this huge repository of knowledge.
- *Two-way interaction* – PLATform will also allow students to interact with

teachers and trainers to clear their doubts and provide feedback, in effect making the learning process interesting and engaging for them.

➢ *Individual and Group Learning* –learning and teaching will be carried out both at home (*on personal gadgets of students*) and, once the corona pandemic subsides, also in schools (*on school computers, LED televisions and projectors*). Further, E-infrastructure at IN-DEED Digital Resource Centre in rural Pali will be also be put to use.
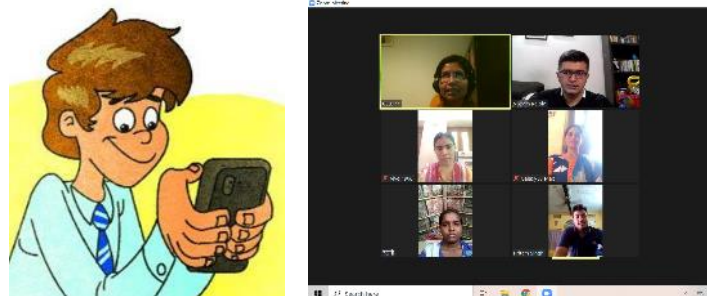
Assessment

The PLATform will incorporate online testing of students in curriculum subject knowledge. Tests will be conducted in Hindi in the form of objective type questions. It will work as follows:

➢ *Online Tests* – students will login for tests using their credentials on the PLATform from their mobile phones, tablets, laptops or school computers. Once the corona pandemic effect is reduced, e-infrastructure at IN-DEED DRC can also be used for this purpose.

➢ *Simultaneous Group Tests* – simultaneous tests will also be conducted at schools where groups of students can attempt the test sitting in one room or hall. The question paper will be visible on LED TVs or projectors screens.

➢ *Performance assessment and tracking* – after taking the test all students can view their scores immediately to check how they performed. This will help them compare their performance with peers and also track improvements over time.

Training

In addition to the teaching and assessment on course subjects, awareness and training programs for employment readiness will also be offered to students:

- *21st century skills* – will include sessions by experts and volunteers on in-demand skills like digital skills, robotics, aeromodelling, coding, STEM concepts etc.
- *Power skills* – training sessions on communication, time management, finance management, critical thinking and other in-demand skills.
- *Motivation sessions* – motivational talks and experience sharing sessions by successful people who have risen from humble beginnings will be conducted to enhance confidence of rural and government school children.

Through this project:

1. 5,000+ students will be able to access live classes, assessments and trainings through the PLATform - an integrated learning solution developed by IN-DEED.
2. Until schools are fully reopened and are safe to attend, participating students will be able to continue learning from their homes without worrying about covid-19.
3. Students will be able to assess their learning levels, connect with faculty and volunteers to get their doubts cleared and their queries responded to.
4. Government school students from intervention area will be participating in such an online learning and interaction platform for the first time.

The project aims to help students

1. become more engaged in the learning process,
2. improve understanding on curriculum subjects,
3. achieve grade-level learning,
4. enthusiastically participate in assessments,
5. attend training programs on essential career and life skills,
6. make up for the learning loss due to covid19 enforced school shutdown.
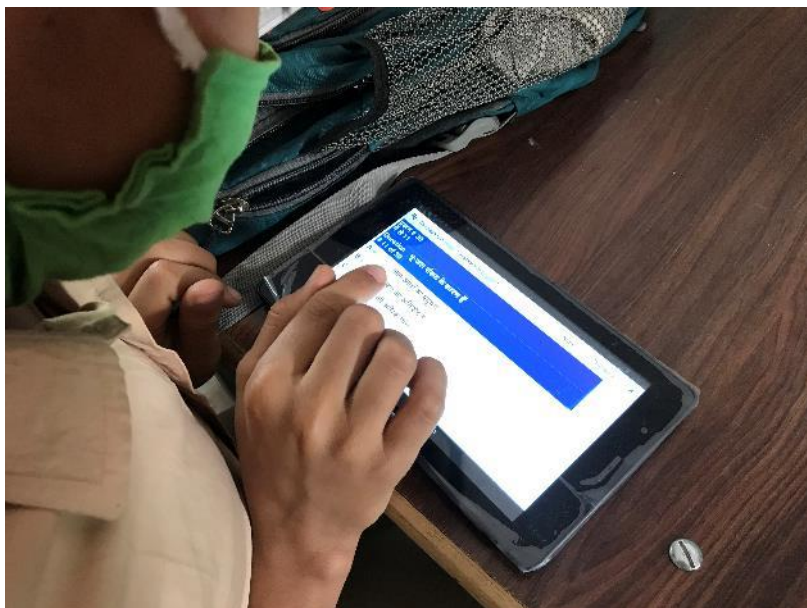

| Picture (i) | Picture (ii) |

Picture: Meeting with DEO and school principals

(i)   Shri Jagdish Chandra Rathore, DEO Pali
(ii)   Ms. Shyama Charan, Principal, Govt. Sr. Secondary School, Chhadwas

3.6 Online Assessments

In March 2021, IN-DEED started online assessments of class X students using tablets. Students are given tests for Science and Mathematics in multiple choice question format in Hindi language. Over 350 students from 10 Government Senior Secondary Schools took the tests.

Picture : Online assessment of students using tablets

3.7 Visit of DEO Pali to IN-DEED Digital Resource Centre

District Education Officer (DEO) Pali, Sh. Jagdish Chandra Rathore visited the Digital Resource Centre (DRC) of IN-DEED Foundation in rural Pali on 11th October 2020. He was apprised of the programs conducted at the DRC.

He appreciated the infrastructure and facilities available at the DRC and offered blessings and all possible support to IN-DEED for success in its education and digital empowerment programs.
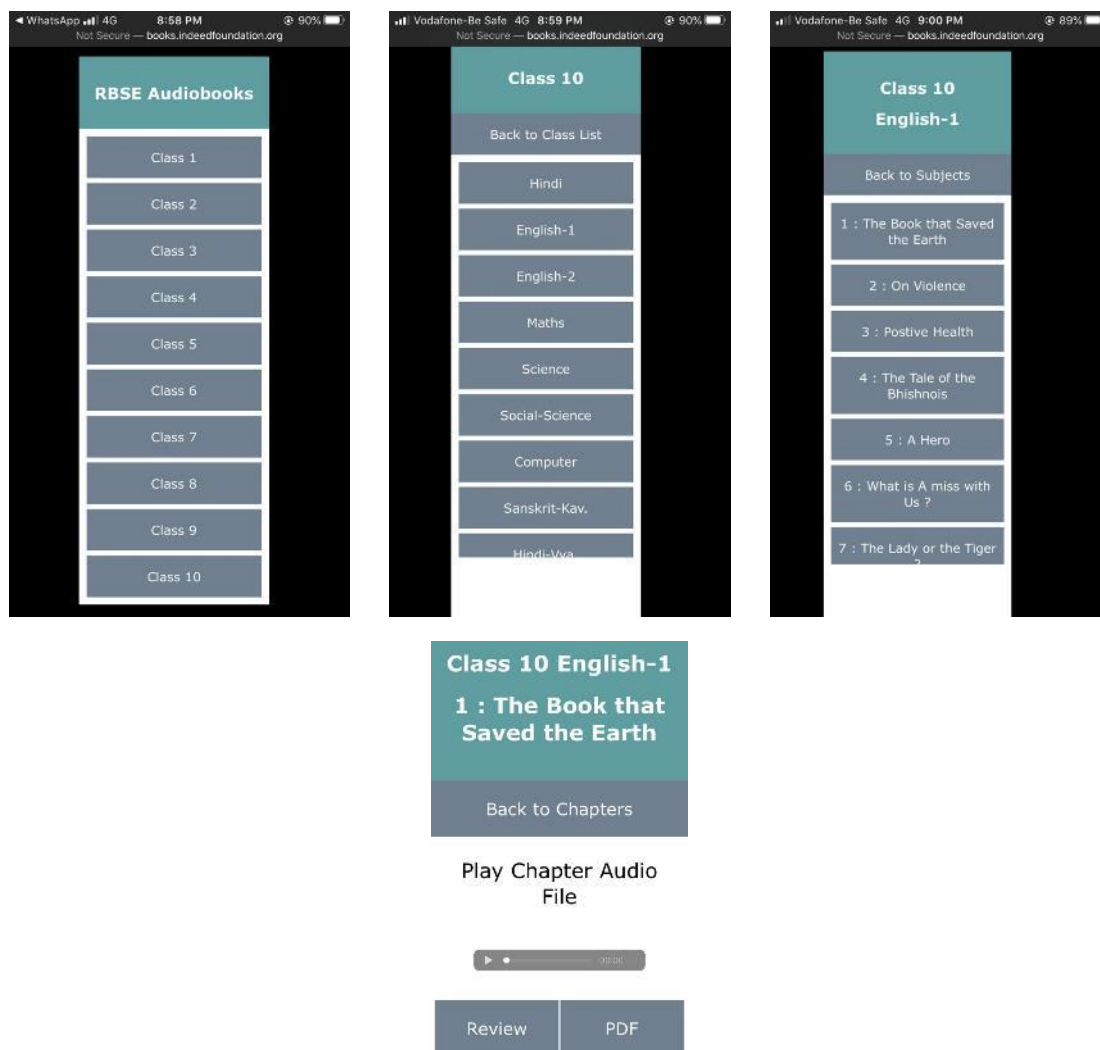
3.8 Development of Audio Files of Curriculum Subjects

IN-DEED Foundation engaged several volunteers to develop audio files of course content of curriculum subjects for classes I to X in Hindi.

i. Interactive teaching method whereby entire curriculum - each chapter of every subject - is taught in the form of a conversation

ii. Explanation is done as if the teacher is teaching in class and students is reading from the books - students are provided hard copies of the course books by school

iii. Audiobooks will be easily downloadable so they can be accessed on a variety of platforms and devices and can be used without active Internet connection

iv. Provides learners with opportunities to increase active listening and develops reading skills, writing skills, and critical thinking skills

v. Increases student's capacity for independent reading - fluency & command of language and subjects

The audio files developed by volunteers are being uploaded on YouTube and an app is being developed that will be integrated with the PLATform software visible as follows:

4. Additional Information

IN-DEED Foundation as a Trust that focusses on education and digital empowerment, yet given the mayhem caused by the covid-19 pandemic, it decided to work on covid relief work. This included distribution of food packets and masks to those in need.

5. Key Partnerships

Over the past several years, IN-DEED Foundation has developed CSR Projects partnershops with several reputed organisations including:

5.1 CSR support from:
  i.   Aditya Birla Capital Ltd.
  ii. Kajaria Ceramics Ltd.
  iii. Axis Bank Ltd.
  iv. ASP Advocates
  v.   Bhoruka Charitable Trust
  vi. Banco Products (India) Ltd.

5.2 Content & Training Collaboration:
  i.   ConceptLive
  ii. eVidyaloka
  iii. Remarkable Education Pvt. Ltd.
  iv. Head Held High Foundation

5.3 Infrastructure & In-kind Donors:
  i.   Team Computers
  ii. AU Small Finance Bank
  iii. Bhoruka Charitable Trust
  iv. PC Financial